

## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/526,060  
Source: PUT/10  
Date Processed by STIC: 3/9/05

# ***ENTERED***

# CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/526,060

CRF Edit Date: 3/11/05  
Edited by: h

\_\_\_ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

\_\_\_ Corrected the SEQ ID NO. Sequence numbers edited were:

\_\_\_\_\_

\_\_\_ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

\_\_\_\_\_

\_\_\_ Deleted: \_\_\_ invalid beginning/end-of-file text ; \_\_\_ page numbers

\_\_\_ Inserted mandatory headings/numeric identifiers, specifically:

\_\_\_\_\_

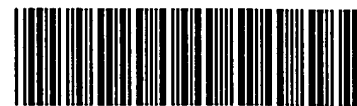
\_\_\_ Moved responses to same line as heading/numeric identifier, specifically:

\_\_\_\_\_

✓ Other: Sequence 7 - moved <2137 response up one line

\_\_\_\_\_

\_\_\_\_\_



PCT10

## RAW SEQUENCE LISTING

DATE: 03/11/2005

PATENT APPLICATION: US/10/526,060

TIME: 14:45:11

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03112005\J526060.raw

```

4 <110> APPLICANT: ASHMAN, Claire
5     ELLIS, Jonathan Henry
7 <120> TITLE OF INVENTION: IMMUNOGENIC COMPOSITION COMPRISING AN
8     IL-13 ELEMENT AND T CELL EPITOPES, AND ITS THERAPEUTIC USE
11 <130> FILE REFERENCE: PG4938
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/526,060
C--> 14 <141> CURRENT FILING DATE: 2005-02-28
16 <150> PRIOR APPLICATION NUMBER: PCT/GB03/03703
17 <151> PRIOR FILING DATE: 2003-08-28
19 <150> PRIOR APPLICATION NUMBER: GB 0304672.9
20 <151> PRIOR FILING DATE: 2003-02-28
22 <150> PRIOR APPLICATION NUMBER: GB 0220212.5
23 <151> PRIOR FILING DATE: 2002-08-30
25 <160> NUMBER OF SEQ ID NOS: 68
27 <170> SOFTWARE: FastSEQ for Windows Version 4.0
29 <210> SEQ ID NO: 1
30 <211> LENGTH: 112
31 <212> TYPE: PRT
32 <213> ORGANISM: Homo sapien IL-13
34 <400> SEQUENCE: 1
35 Gly Pro Val Pro Pro Ser Thr Ala Leu Arg Glu Leu Ile Glu Glu Leu
36 1           5           10           15
37 Val Asn Ile Thr Gln Asn Gln Lys Ala Pro Leu Cys Asn Gly Ser Met
38 20           25           30
39 Val Trp Ser Ile Asn Leu Thr Ala Gly Met Tyr Cys Ala Ala Leu Glu
40 35           40           45
41 Ser Leu Ile Asn Val Ser Gly Cys Ser Ala Ile Glu Lys Thr Gln Arg
42 50           55           60
43 Met Leu Ser Gly Phe Cys Pro His Lys Val Ser Ala Gly Gln Phe Ser
44 65           70           75           80
45 Ser Leu His Val Arg Asp Thr Lys Ile Glu Val Ala Gln Phe Val Lys
46 85           90           95
47 Asp Leu Leu Leu His Leu Lys Lys Leu Phe Arg Glu Gly Arg Phe Asn
48 100          105          110
51 <210> SEQ ID NO: 2
52 <211> LENGTH: 111
53 <212> TYPE: PRT
54 <213> ORGANISM: Murine IL-13
56 <400> SEQUENCE: 2
57 Gly Pro Val Pro Arg Ser Val Ser Leu Pro Leu Thr Leu Lys Glu Leu
58 1           5           10           15
59 Ile Glu Glu Leu Ser Asn Ile Thr Gln Asp Gln Thr Pro Leu Cys Asn
60 20           25           30

```

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Input Set : A:\PTO.AMC.txt

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```

61 Gly Ser Met Val Trp Ser Val Asp Leu Ala Ala Gly Gly Phe Cys Val
62          35                      40                      45
63 Ala Leu Asp Ser Leu Thr Asn Ile Ser Asn Cys Asn Ala Ile Tyr Arg
64          50                      55                      60
65 Thr Gln Arg Ile Leu His Gly Leu Cys Asn Arg Lys Ala Pro Thr Thr
66 65          70                      75                      80
67 Val Ser Ser Leu Pro Asp Thr Lys Ile Glu Val Ala His Phe Ile Thr
68          85                      90                      95
69 Lys Leu Leu Ser Tyr Thr Lys Gln Leu Phe Arg His Gly Pro Phe
70          100                     105                     110
73 <210> SEQ ID NO: 3
74 <211> LENGTH: 111
75 <212> TYPE: PRT
76 <213> ORGANISM: Porcine IL-13
78 <400> SEQUENCE: 3
79 Gly Pro Val Pro Pro His Ser Thr Ala Leu Lys Glu Leu Ile Glu Glu
80 1          5                      10                      15
81 Leu Val Asn Ile Thr Gln Asn Gln Lys Thr Pro Leu Cys Asn Gly Ser
82          20                      25                      30
83 Met Val Trp Ser Val Asn Leu Thr Thr Ser Met Gln Tyr Cys Ala Ala
84          35                      40                      45
85 Leu Glu Ser Leu Ile Asn Ile Ser Asp Cys Ser Ala Ile Gln Lys Thr
86          50                      55                      60
87 Gln Arg Met Leu Ser Ala Leu Cys Ser His Lys Pro Pro Ser Glu Gln
88 65          70                      75                      80
89 Val Pro Gly Lys His Ile Arg Asp Thr Lys Ile Glu Val Ala Gln Phe
90          85                      90                      95
91 Val Lys Asp Leu Leu Lys His Leu Arg Met Ile Phe Arg His Gly
92          100                     105                     110
95 <210> SEQ ID NO: 4
96 <211> LENGTH: 112
97 <212> TYPE: PRT
98 <213> ORGANISM: Bovine IL-13
100 <400> SEQUENCE: 4
101 Ser Pro Val Pro Ser Ala Thr Ala Leu Lys Glu Leu Ile Glu Glu Leu
102 1          5                      10                      15
103 Val Asn Ile Thr Gln Asn Gln Lys Val Pro Leu Cys Asn Gly Ser Met
104          20                      25                      30
105 Val Trp Ser Leu Asn Leu Thr Ser Ser Met Tyr Cys Ala Ala Leu Asp
106          35                      40                      45
107 Ser Leu Ile Ser Ile Ser Asn Cys Ser Val Ile Gln Arg Thr Lys Lys
108          50                      55                      60
109 Met Leu Asn Ala Leu Cys Pro His Lys Pro Ser Ala Lys Gln Val Ser
110 65          70                      75                      80
111 Ser Glu Tyr Val Arg Asp Thr Lys Ile Glu Val Ala Gln Phe Leu Lys
112          85                      90                      95
113 Asp Leu Leu Arg His Ser Arg Ile Val Phe Arg Asn Glu Arg Phe Asn
114          100                     105                     110
117 <210> SEQ ID NO: 5

```

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Input Set : A:\PTO.AMC.txt

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118 &lt;211&gt; LENGTH: 111

119 &lt;212&gt; TYPE: PRT

120 &lt;213&gt; ORGANISM: Canine IL-13

122 &lt;400&gt; SEQUENCE: 5

```

123 Ser Pro Val Thr Pro Ser Pro Thr Leu Lys Glu Leu Ile Glu Glu Leu
124 1 5 10 15
125 Val Asn Ile Thr Gln Asn Gln Ala Ser Leu Cys Asn Gly Ser Met Val
126 20 25 30
127 Trp Ser Val Asn Leu Thr Ala Gly Met Tyr Cys Ala Ala Leu Glu Ser
128 35 40 45
129 Leu Ile Asn Val Ser Asp Cys Ser Ala Ile Gln Arg Thr Gln Arg Met
130 50 55 60
131 Leu Lys Ala Leu Cys Ser Gln Lys Pro Ala Ala Gly Gln Ile Ser Ser
132 65 70 75 80
133 Glu Arg Ser Arg Asp Thr Lys Ile Glu Val Ile Gln Leu Val Lys Asn
134 85 90 95
135 Leu Leu Thr Tyr Val Arg Gly Val Tyr Arg His Gly Asn Phe Arg
136 100 105 110

```

139 &lt;210&gt; SEQ ID NO: 6

140 &lt;211&gt; LENGTH: 111

141 &lt;212&gt; TYPE: PRT

142 &lt;213&gt; ORGANISM: Rat IL-13

W--&gt; 143 &lt;400&gt; SEQUENCE: 6

```

144 Gly Pro Val Arg Arg Ser Thr Ser Pro Pro Val Ala Leu Arg Glu Leu
145 1 5 10 15
146 Ile Glu Glu Leu Ser Asn Ile Thr Gln Asp Gln Lys Thr Ser Leu Cys
147 20 25 30
148 Asn Ser Ser Met Val Trp Ser Val Asp Leu Thr Ala Gly Gly Phe Cys
149 35 40 45
150 Ala Ala Leu Glu Ser Leu Thr Asn Ile Ser Ser Cys Asn Ala Ile His
151 50 55 60
152 Arg Thr Gln Arg Ile Leu Asn Gly Leu Cys Asn Gln Lys Ala Ser Asp
153 65 70 75 80
154 Val Ala Ser Ser Pro Asp Thr Lys Ile Glu Val Ala Gln Phe Ile
155 85 90 95
156 Ser Lys Leu Leu Asn Tyr Ser Lys Gln Leu Phe Arg Tyr Gly His
157 100 105 110

```

160 &lt;210&gt; SEQ ID NO: 7

161 &lt;211&gt; LENGTH: 111

162 &lt;212&gt; TYPE: PRT

163 &lt;213&gt; ORGANISM: Cynomolgus il-13

165 &lt;400&gt; SEQUENCE: 7

```

166 Ser Pro Val Pro Pro Ser Thr Ala Leu Lys Glu Leu Ile Glu Glu Leu
167 1 5 10 15
168 Val Asn Ile Thr Gln Asn Gln Lys Ala Pro Leu Cys Asn Gly Ser Met
169 20 25 30
170 Val Trp Ser Ile Asn Leu Thr Ala Gly Val Tyr Cys Ala Ala Leu Glu
171 35 40 45
172 Ser Leu Ile Asn Val Ser Gly Cys Ser Ala Ile Glu Lys Thr Gln Arg

```

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```

173      50                      55                      60
174 Met Leu Asn Gly Phe Cys Pro His Lys Val Ser Ala Gly Gln Phe Ser
175 65                      70                      75                      80
176 Ser Leu Arg Val Arg Asp Thr Lys Ile Glu Val Ala Gln Phe Val Lys
177                      85                      90                      95
178 Asp Leu Leu His Leu Lys Lys Leu Phe Arg Glu Gly Gln Phe Asn
179      100                      105                      110
182 <210> SEQ ID NO: 8
183 <211> LENGTH: 112
184 <212> TYPE: PRT
185 <213> ORGANISM: Rhesus IL-13
187 <400> SEQUENCE: 8
188 Ser Pro Val Pro Arg Ser Thr Ala Leu Lys Glu Leu Ile Glu Glu Leu
189 1      5                      10                      15
190 Val Asn Ile Thr Gln Asn Gln Lys Ala Pro Leu Cys Asn Gly Ser Met
191      20                      25                      30
192 Val Trp Ser Ile Asn Leu Thr Ala Gly Val Tyr Cys Ala Ala Leu Glu
193      35                      40                      45
194 Ser Leu Ile Asn Val Ser Gly Cys Ser Ala Ile Glu Lys Thr Gln Arg
195      50                      55                      60
196 Met Leu Asn Gly Phe Cys Pro His Lys Val Ser Ala Gly Gln Phe Ser
197 65                      70                      75                      80
198 Ser Leu Arg Val Arg Asp Thr Lys Ile Glu Val Ala Gln Phe Val Lys
199      85                      90                      95
200 Asp Leu Leu Val His Leu Lys Lys Leu Phe Arg Glu Gly Arg Phe Asn
201      100                      105                      110
204 <210> SEQ ID NO: 9
205 <211> LENGTH: 112
206 <212> TYPE: PRT
207 <213> ORGANISM: Marmoset IL-13
209 <400> SEQUENCE: 9
210 Gly Pro Val Pro Pro Tyr Thr Ala Leu Lys Glu Leu Ile Glu Glu Leu
211 1      5                      10                      15
212 Val Asn Ile Thr Gln Asn Gln Lys Ala Pro Leu Cys Asn Gly Ser Met
213      20                      25                      30
214 Val Trp Ser Ile Asn Met Thr Ala Gly Val Tyr Cys Ala Ala Leu Glu
215      35                      40                      45
216 Ser Leu Ile Asn Val Ser Gly Cys Ser Ala Ile Glu Lys Thr Gln Arg
217      50                      55                      60
218 Met Leu Ser Gly Phe Cys Pro His Lys Val Ser Ala Gly Gln Phe Ser
219 65                      70                      75                      80
220 Ser Leu Leu Val Arg Asp Thr Lys Ile Glu Val Ala Gln Phe Val Lys
221      85                      90                      95
222 Asp Leu Leu Arg His Leu Arg Lys Leu Phe His Gln Gly Thr Phe Asn
223      100                      105                      110
226 <210> SEQ ID NO: 10
227 <211> LENGTH: 112
228 <212> TYPE: PRT
229 <213> ORGANISM: Artificial Sequence

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TIME: 14:45:11

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03112005\J526060.raw

231 &lt;220&gt; FEATURE:

232 &lt;223&gt; OTHER INFORMATION: Chimaeric Homo Sapien IL-13

234 &lt;400&gt; SEQUENCE: 10

235 Gly Pro Val Pro Pro Ser Ser Ala Leu Lys Glu Leu Ile Glu Glu Leu

236 1 5 10 15

237 Ala Asn Ile Thr Gln Asn Gln Lys Ala Pro Leu Cys Asn Gly Ser Met

238 20 25 30

239 Val Trp Ser Ile Asn Leu Thr Ala Gly Met Tyr Cys Ala Ala Leu Asp

240 35 40 45

241 Ser Leu Ile Asn Val Ser Gly Cys Ser Ala Ile Glu Arg Thr Gln Arg

242 50 55 60

243 Ile Leu Ser Ala Phe Cys Pro His Lys Val Ser Ala Gly Gln Phe Ser

244 65 70 75 80

245 Ser Leu Arg Val Arg Asp Thr Lys Ile Glu Val Ala Gln Phe Val Thr

246 85 90 95

247 Asp Leu Leu Val His Leu Lys Arg Leu Phe Arg Gln Gly Thr Phe Asn

248 100 105 110

251 &lt;210&gt; SEQ ID NO: 11

252 &lt;211&gt; LENGTH: 121

253 &lt;212&gt; TYPE: PRT

254 &lt;213&gt; ORGANISM: Artificial Sequence

256 &lt;220&gt; FEATURE:

257 &lt;223&gt; OTHER INFORMATION: Chimaeric Homo Sapien IL-13

259 &lt;400&gt; SEQUENCE: 11

260 Gly Pro Val Pro Pro Ser Thr Ala Leu Arg Glu Leu Ile Glu Glu Leu

261 1 5 10 15

262 Val Asn Ile Thr Gln Asn Gln Lys Ala Pro Leu Cys Asn Gly Ser Met

263 20 25 30

264 Val Trp Ser Ile Asn Leu Thr Ala Gly Met Tyr Cys Ala Ala Leu Glu

265 35 40 45

266 Ser Leu Ile Asn Val Ser Gly Cys Ser Ala Ile Glu Lys Thr Gln Arg

267 50 55 60

268 Met Leu Gly Gly Phe Cys Pro His Lys Phe Asn Asn Phe Thr Val Ser

269 65 70 75 80

270 Phe Trp Leu Arg Val Pro Lys Val Ser Ala Ser His Leu Glu Asp Thr

271 85 90 95

272 Lys Ile Glu Val Ala Gln Phe Val Lys Asp Leu Leu Leu His Leu Lys

273 100 105 110

274 Lys Leu Phe Arg Glu Gly Arg Phe Asn

275 115 120

278 &lt;210&gt; SEQ ID NO: 12

279 &lt;211&gt; LENGTH: 133

280 &lt;212&gt; TYPE: PRT

281 &lt;213&gt; ORGANISM: Artificial Sequence

283 &lt;220&gt; FEATURE:

284 &lt;223&gt; OTHER INFORMATION: Chimaeric Homo Sapien IL-13

286 &lt;400&gt; SEQUENCE: 12

287 Phe Asn Asn Phe Thr Val Ser Phe Trp Leu Arg Val Pro Lys Val Ser

288 1 5 10 15

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/526,060

DATE: 03/11/2005

TIME: 14:45:12

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03112005\J526060.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application Number

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:143 M:283 W: Missing Blank Line separator, <400> field identifier